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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/528,019	ITO, TADAYOSHI	
	Examiner	Art Unit	
	DIEGO HERRERA	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 June 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *5, 10, 15, 21* is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 4, 6-9, 11-14, and 17-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rogard et al. (US 7062294), and in view of Ogawa et al. (EP 1225706 A1).

Regarding claim 1. A radio cell station apparatus in a mobile communication system (abstract, col. 5 lines: 55—col. 6 lines: 33, Rogard et al. teaches base station and a plurality of personal stations or mobile terminals and embodiment of applying SDMA use with the invention of Rogard et al.), signals received in said mobile communication

system including already-known reference signals (col. 5 lines: 40-55, Rogard et al. teaches either known signal or the constructed reference signal), comprising:

a search unit configured to search for a reference signal representing a unique identifier sent along an assigned radio frequency already used in a neighboring cell station (col. 8 lines: 39—col. 9 lines: 10, Rogard et al. teaches searching means for references signal sent by mobile terminal, col. 10 lines: 30-62);

however, Rogard et al. do not discloses storage unit configured to store the reference signal detected by said search, nevertheless, Rogard et al. does discloses a database wherein information for signal received, col. 14 lines: 4-9; Ogawa et al. teaches storage unit of reference signals (¶:37-39). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention of Rogard et al. was made to specifically include a storage unit for storing reference signal, as taught by Ogawa et al. for the purposes of using desired reference signal when interfering signals reception is detected.

a reference signal allocation unit configured to allocate (abstract, col. 4 lines: 38-556, Rogard et al. teaches allocation unit for reference signal for mobile device in area).

when a connection request is received from a terminal device, a reference signal different from the reference signal stored in said storage unit (col. 5 lines: 30-55, Rogard et al. teaches when mobile terminal is requesting service it has the adaptive spatial processor using various techniques for determining the uplink smart antenna processing strategy as defined by the weighting parameters, even when signals are known or constructed which are different).

Regarding claim 2. A radio cell station apparatus in a mobile communication system (abstract, col. 5 lines: 55—col. 6 lines: 33, Rogard et al. teaches base station and a plurality of personal stations or mobile terminals and embodiment of applying SDMA use with the invention of Rogard et al.), signals received in said mobile communication system including already-known reference signals (col. 5 lines: 40-55, Rogard et al. teaches either known signal or the constructed reference signal), comprising:

search means for searching for a reference signal sent along a radio frequency already used between a terminal device and a neighboring cell station by receiving in advance of a connection request (col. 9 lines: 19-59, Rogard et al. teaches UT_sequence for each user terminal, furthermore, col. 14 lines: 10-52, Rogard et al. teaches information shared between base stations about user terminals information including that of signals) received from the terminal device a communication signal communicated between said neighboring cell station and the terminal device communicating with said neighboring cell station (col. 10 lines: 30—col. 11 lines: 3, Rogard et al. teaches communication system between base stations to communicate between them protocols and downlink smart antenna processing strategy by weighting parameters determined from uplink weighting parameters by further using calibration), and analyzing a reference signal in use from the received communication signal (col. 10 lines: 48-62, Rogard et al. teaches each base station using protocol to communicate with its associated user terminals, in turn the two base stations being coordinated share these protocols between them); and

however, Rogard et al. do not discloses storage means for storing and holding said analyzed reference signal; nevertheless, Rogard et al. does discloses a database wherein information for signal received, col. 14 lines: 4-9; Ogawa et al. teaches storage unit of reference signals (¶:37-39). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention of Rogard et al. was made to specifically include a storage unit for storing reference signal, as taught by Ogawa et al. for the purposes of using desired reference signal when interfering signals reception is detected.

reference signal allocation means for allocating, when a connection request is received from the terminal device (abstract, col. 4 lines: 38-556, Rogard et al. teaches allocation unit for reference signal for mobile device in area), a reference signal different from the reference signal stored in said storage means (col. 5 lines: 30-55, Rogard et al. teaches when mobile terminal is requesting service it has the adaptive spatial processor using various techniques for determining the uplink smart antenna processing strategy as defined by the weighting parameters, even when signals are known or constructed which are different).

Regarding claim 4. A radio cell station apparatus in a mobile communication system (abstract, col. 5 lines: 55—col. 6 lines: 33, Rogard et al. teaches base station and a plurality of personal stations or mobile terminals and embodiment of applying SDMA use with the invention of Rogard et al.), signals transmitted/received in said mobile communication system including already-known reference signals (col. 5 lines: 40-55, Rogard et al. teaches either known signal or the constructed reference signal),

comprising:

however, Rogard et al. do not discloses specifically a storage unit for storing a plurality of reference signals different from each other representing unique identifiers sent along an assigned radio frequency; nevertheless, Rogard et al. does discloses a database wherein information for signal received, col. 14 lines: 4-9; Ogawa et al. teaches storage unit of reference signals (¶:37-39). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention of Rogard et al. was made to specifically include a storage unit for storing reference signal, as taught by Ogawa et al. for the purposes of using desired reference signal when interfering signals reception is detected.

a reference signal allocation unit configured to randomly select, when a connection request is received from a terminal device, a reference signal from said storage unit based on a cell station number assigned to each cell station and configured to allocate the reference signal to said terminal device (col. 14 lines: 35-49, Rogard et al. teaches base station communication mechanism therefore, one of ordinary skill in the art would understand that the protocol will include base stations identification number, furthermore, col. 9 lines: 30-55, teaches about UT_sequence for each user terminal, wherein the base station identification and the user terminal identification numbers could be used as inputs to a PN sequence generator, therefore, the number of the cell station can be obtain from reference signal).

Regarding claim 6. A reference signal allocation method performed by a radio cell station apparatus in a mobile communication system (abstract, col. 5 lines: 55—col. 6

lines: 33, Rogard et al. teaches base station and a plurality of personal stations or mobile terminals and embodiment of applying SDMA use with the invention of Rogard et al.), signals received in said mobile communication system including already-known reference signals (col. 5 lines: 40-55, Rogard et al. teaches either known signal or the constructed reference signal), comprising the steps of:

searching by the radio cell station apparatus for a reference signal representing a unique identifier sent along an assigned radio frequency already used in a neighboring cell station (col. 9 lines: 19-59, Rogard et al. teaches UT_sequence for each user terminal, furthermore, col. 14 lines: 10-52, Rogard et al. teaches information shared between base stations about user terminals information including that of signals); however, Rogard et al. do not discloses specifically storing by the radio cell station apparatus said reference signal detected; nevertheless, Rogard et al. does discloses a database wherein information for signal received, col. 14 lines: 4-9; Ogawa et al. teaches storage unit of reference signals (¶:37-39). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention of Rogard et al. was made to specifically include a storage unit for storing reference signal, as taught by Ogawa et al. for the purposes of using desired reference signal when interfering signals reception is detected.

allocating by the radio cell station apparatus, when a connection request is received from a terminal device, a reference signal different from said reference signal stored (col. 5 lines: 30-55, Rogard et al. teaches when mobile terminal is requesting service it has the adaptive spatial processor using various techniques for determining the uplink

smart antenna processing strategy as defined by the weighting parameters, even when signals are known or constructed which are different).

Regarding claim 9. A reference signal allocation method performed by a radio cell station apparatus in a mobile communication system (abstract, col. 5 lines: 55—col. 6 lines: 33, Rogard et al. teaches base station and a plurality of personal stations or mobile terminals and embodiment of applying SDMA use with the invention of Rogard et al.), signals transmitted/received in said mobile communication system including already-known reference signals (col. 5 lines: 40-55, Rogard et al. teaches either known signal or the constructed reference signal), comprising the steps of:

however, Rogard et al. do not discloses specifically storing by the radio cell station apparatus a plurality of reference signals different from each other representing unique identifiers sent along an assigned radio frequency ; nevertheless, Rogard et al. does discloses a database wherein information for signal received, col. 14 lines: 4-9; Ogawa et al. teaches storage unit of reference signals (¶:37-39). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention of Rogard et al. was made to specifically include a storage unit for storing reference signal, as taught by Ogawa et al. for the purposes of using desired reference signal when interfering signals reception is detected.

randomly selecting by the radio cell station apparatus, when a connection request is received from a terminal device, a reference signal from said plurality of reference signals based on a cell station number assigned to each cell station (col. 9 lines: 19-59, Rogard et al. teaches UT_sequence for each user terminal, furthermore, col. 14 lines:

10-52, Rogard et al. teaches information shared between base stations about user terminals information including that of signals and information about second base station providing service) and allocating the reference signal to said terminal device (col. 5 lines: 30-55, Rogard et al. teaches when mobile terminal is requesting service it has the adaptive spatial processor using various techniques for determining the uplink smart antenna processing strategy as defined by the weighting parameters, even when signals are known or constructed which are different).

Regarding claim 11. A computer readable medium containing program code which, when executed, causes a radio cell station apparatus in a mobile communication system to execute a reference signal allocation method (abstract, col. 5 lines: 55—col. 6 lines: 33, Rogard et al. teaches base station and a plurality of personal stations or mobile terminals and embodiment of applying SDMA use with the invention of Rogard et al.), signals received in said mobile communication system including already-known reference signals (col. 5 lines: 40-55, Rogard et al. teaches either known signal or the constructed reference signal) comprising:

program code for searching for a reference signal representing a unique identifier sent along an assigned radio frequency already used in a neighboring cell station ();

however, Rogard et al. do not discloses specifically program code for storing said reference signal detected; nevertheless, Rogard et al. does discloses a database wherein information for signal received, col. 14 lines: 4-9; Ogawa et al. teaches storage unit of reference signals (¶:37-39). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention of Rogard et al. was made to

specifically include a storage unit for storing reference signal, as taught by Ogawa et al. for the purposes of using desired reference signal when interfering signals reception is detected.

program code for allocating, when a connection request is received from a terminal device (col. 5 lines: 40—col. 6 lines: 3, Rogard et al. teaches using spatial optimization of signals and using adaptive spatial processor, also the smart antenna processing strategy), a reference signal different from said reference signal stored (col. 5 lines: 30-55, Rogard et al. teaches when mobile terminal is requesting service it has the adaptive spatial processor using various techniques for determining the uplink smart antenna processing strategy as defined by the weighting parameters, even when signals are known or constructed which are different).

Regarding claim 14. A computer readable medium containing program code which, when executed, causes a radio cell station apparatus in a mobile communication system to execute a reference signal allocation method (abstract, col. 5 lines: 55—col. 6 lines: 33, Rogard et al. teaches base station and a plurality of personal stations or mobile terminals and embodiment of applying SDMA use with the invention of Rogard et al.), signals transmitted/received in said mobile communication system including already-known reference signals (col. 5 lines: 40-55, Rogard et al. teaches either known signal or the constructed reference signal), comprising:

program code for storing a plurality of reference signals different from each other representing unique identifiers sent along an assigned radio frequency (col. 9 lines: 30-49, Rogard et al. teaches UT_sequence for each user terminal and storing this on base

station database); and program code for randomly selecting, when a connection request is received from a terminal device, a reference signal from said plurality of reference signals based on a cell station number assigned to each cell station (col. 9 lines: 30-49, Rogard et al. teaches UT_sequence for each user terminal and storing this on base station database; col. 13 lines: 12-30, col. 14 lines: 4-34, Rogard et al. teaches assigning reference signal to mobile terminal) and allocating the reference signal to said terminal device (col. 5 lines: 40—col. 6 lines: 3, Rogard et al. teaches using spatial optimization of signals and using adaptive spatial processor, also the smart antenna processing strategy).

Regarding claim 19. A radio cell station apparatus in a mobile communication system, signals received in said mobile communication system including already-known reference signals (col. 5 lines: 40-55, Rogard et al. teaches either known signal or the constructed reference signal), comprising:

a search unit configured to search for a reference signal sent along a radio frequency already used between a terminal device and a neighboring cell station by receiving in advance of a connection request received from the terminal device a communication signal communicated between said neighboring cell station and the terminal device communicating with said neighboring cell station, and configured to analyze a reference signal in use from the received communication signal; and

however, Rogard et al. do not discloses specifically a storage unit configured to store and hold said analyzed reference signal; nevertheless, Rogard et al. does discloses a database wherein information for signal received, col. 14 lines: 4-9; Ogawa et al.

teaches storage unit of reference signals (¶:37-39). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention of Rogard et al. was made to specifically include a storage unit for storing reference signal, as taught by Ogawa et al. for the purposes of using desired reference signal when interfering signals reception is detected.

a reference signal allocation unit configured to allocate, when a connection request is received from the terminal device, a reference signal different from the reference signal stored in said storage unit (col. 5 lines: 30-55, Rogard et al. teaches when mobile terminal is requesting service it has the adaptive spatial processor using various techniques for determining the uplink smart antenna processing strategy as defined by the weighting parameters, even when signals are known or constructed which are different).

Consider claim 3. The radio cell station apparatus according to claim 2, wherein said search means searches for the reference signal used in said neighboring cell station for each traffic slot allocated to said terminal device (col. 12 lines: 5-48, Rogard et al.).

Consider claim 7. The reference signal allocation method according to claim 6, further comprising the steps of:

before the connection request is received from said terminal device, receiving in advance a communication signal communicated between said neighboring cell station (col. 14 lines: 35-52, Rogard et al. teaches receiving at first base station from another base station signal communication information) and a terminal device communicating with said neighboring cell station (col. 14 lines: 35-52, Rogard et al. teaches and

suggest that mobile terminal has communicated or is communicating with terminal device), and analyzing a reference signal in use from the received communication signal (col. 14 lines: 31-34, Rogard et al. teaches retrieving information about reference signal and using the smart antenna to determine a smart antenna processing strategy to include interference mitigation); and

however, Rogard et al. do not discloses specifically storing said analyzed reference signal; nevertheless, Rogard et al. does discloses a database wherein information for signal received, col. 14 lines: 4-9; Ogawa et al. teaches storage unit of reference signals (¶:37-39). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention of Rogard et al. was made to specifically include a storage unit for storing reference signal, as taught by Ogawa et al. for the purposes of using desired reference signal when interfering signals reception is detected.

Consider claim 8. The reference signal allocation method according to claim 7, further comprising the step of searching for the reference signal used in said neighboring cell station for each traffic slot allocated to said terminal device (col. 17 lines: 52—col. 18 lines: 34, Rogard et al. teaches synchronization of communication within each traffic slot from the reference signal).

Consider claim 12. The computer readable medium according to claim 11 executed by the radio cell station apparatus in the mobile communication system, the execution of the method caused by executing the program code contained in the computer readable medium, said method further comprising the steps of:

before the connection request is received from said terminal device, receiving in

advance a communication signal communicated between said neighboring cell station (col. 14 lines: 35-52, Rogard et al. teaches receiving at first base station from another base station signal communication information) and a terminal device communicating with said neighboring cell station (col. 14 lines: 35-52, Rogard et al. teaches and suggest that mobile terminal has communicated or is communicating with terminal device), and analyzing a reference signal in use from the received communication signal (col. 14 lines: 31-34, Rogard et al. teaches retrieving information about reference signal and using the smart antenna to determine a smart antenna processing strategy to include interference mitigation); and

however, Rogard et al. do not discloses specifically storing said analyzed reference signal; nevertheless, Rogard et al. does discloses a database wherein information for signal received, col. 14 lines: 4-9; Ogawa et al. teaches storage unit of reference signals (¶:37-39). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention of Rogard et al. was made to specifically include a storage unit for storing reference signal, as taught by Ogawa et al. for the purposes of using desired reference signal when interfering signals reception is detected.

Consider claim 13. The computer readable medium according to claim 12 executed by the radio cell station apparatus in the mobile communication system, the execution of the method caused by executing the program code contained in the computer readable medium, said method further comprising the step of searching for the reference signal used in said neighboring cell station for each traffic slot allocated to said terminal device

(col. 17 lines: 52—col. 18 lines: 34, Rogard et al. teaches synchronization of communication within each traffic slot from the reference signal).

Consider claim 17. The reference signal allocation method of claim 8 wherein a reference signal is used for synchronization of communication within each traffic slot (col. 17 lines: 52—col. 18 lines: 34, Rogard et al. teaches synchronization of communication within each traffic slot from the reference signal).

Consider claim 18. The reference signal allocation method of claim 13 wherein a reference signal is used for synchronization of communication within each traffic slot (col. 17 lines: 52—col. 18 lines: 34, Rogard et al. teaches synchronization of communication within each traffic slot from the reference signal).

Consider claim 20. The radio cell station apparatus according to claim 19, wherein said search unit searches for the reference signal used in said neighboring cell station for each traffic slot allocated to said terminal device (col. 12 lines: 49—col. 13 lines: 10, Rogard et al. teaches smart antenna processing strategy for obtaining neighboring cell or second base station for traffic slot information provided to terminal device).

Consider claim 22. The radio cell station apparatus according to claim 1, wherein a reference signal pattern used in each cell station is defined on condition that each signal communicated from said terminal device to said cell station can be separated and extracted in a stable manner (col. 6 lines: 15-55, Rogard et al. teaches weighting factors and filtering means for processing parameters for signals by spatio-temporal or spatial processing).

Consider claim 23. The radio cell station apparatus according to claim 4, wherein a reference signal pattern used in each cell station is defined on condition that each signal communicated from said terminal device to said cell station can be separated and extracted in a stable manner (col. 6 lines: 15-55, Rogard et al. teaches weighting factors and filtering means for processing parameters for signals by spatio-temporal or spatial processing).

Consider claim 24. The reference signal allocation method according to claim 6, wherein a reference signal pattern used in each cell station is defined on condition that each signal

communicated from said terminal device to said cell station can be separated and extracted in a stable manner (col. 6 lines: 15-55, Rogard et al. teaches weighting factors and filtering means for processing parameters for signals by spatio-temporal or spatial processing).

Consider claim 25. The reference signal allocation method according to claim 9, wherein a reference signal pattern used in each cell station is defined on condition that each signal communicated from said terminal device to said cell station can be separated and extracted in a stable manner (col. 6 lines: 15-55, Rogard et al. teaches weighting factors and filtering means for processing parameters for signals by spatio-temporal or spatial processing).

Consider claim 26. The computer medium according to claim 11, wherein a reference signal pattern used in each cell station is defined on condition that each signal communicated from said terminal device to said cell station can be separated and

extracted in a stable manner (col. 6 lines: 15-55, Rogard et al. teaches weighting factors and filtering means for processing parameters for signals by spatio-temporal or spatial processing).

Consider claim 27. The computer medium according to claim 14, wherein a reference signal pattern used in each cell station is defined on condition that each signal communicated from said terminal device to said cell station can be separated and extracted in a stable manner (col. 6 lines: 15-55, Rogard et al. teaches weighting factors and filtering means for processing parameters for signals by spatio-temporal or spatial processing).

Allowable Subject Matter

Claims 5, 10, 15, and 21 are allowed.

The following is an examiner's statement of reasons for allowance: these claims express the limitations of having allocating reference signal algorithm for terminal device at a cell station by dividing the reference signals by the stored reference signals in storage means.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIEGO HERRERA whose telephone number is (571)272-0907. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Diego Herrera/
Examiner, Art Unit 2617

/LESTER KINCAID/
Supervisory Patent Examiner, Art Unit 2617